

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
DOLLAR-DENOMINATED FIXED INCOME PROGRAM**

October 17, 2005

This Policy is effective immediately upon adoption and supersedes all previous dollar denominated fixed income investment policies.

I. PURPOSE

This document sets forth the investment policy ("the Policy") for Dollar Denominated Fixed Income Program ("the Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.

II. STRATEGIC OBJECTIVE

Achieving the highest total rate of return possible, consistent with a prudent level of risk and the liabilities of the System is the strategic objective of the Program.

The Program shall be managed to accomplish the following:

- A. Diversify the System's overall investment Program;
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law;
- C. [Hedge](#) against a long [duration](#) accrued liability; and
- D. Enhance the System's total return.

III. RESPONSIBILITIES AND DELEGATIONS

- A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).

B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:

1. Developing and recommending the Policy to the Investment Committee;
2. Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;
3. Implementing and adhering to the Policy;
4. Auditing the securities trading activities of Fixed Income portfolio managers and traders by the [Senior Investment Officer, Fixed Income](#);
5. Reporting immediately all violations of the Policy to the [Chief Investment Officer](#) and at the next quarterly report to the Investment Committee with explanations;
6. Hiring external money managers upon approval or direction of the Investment Committee;
7. Purchasing only securities outlined in the Policy;
8. Reporting to the System's Investment Committee at least quarterly about the domestic internal fixed income portfolio characteristics on the following issues:
 - a. Relative duration;
 - b. Sector weightings; and
 - c. An exceptions report that covers Policy violations.
9. Reporting internally to senior management concerning the implementation of this Policy. This report shall be prepared monthly to include, but is not limited to, the following areas:
 - a. Current market value and allocations by sector compared to the Index;
 - b. Aggregate and individual portfolio characteristics (including duration) compared to guidelines;

- c. An exceptions report that covers Policy violations.
 - 10. Recommending action with respect to the [external manager\(s\)](#) retained to implement the Program, in accordance with the Policy or with respect to changes in the manager's contractual guidelines, or regarding any other aspect the Staff considers pertinent; and
 - 11. Reporting to the Investment Committee on the performance of the Program as needed and monitoring implementation of, and compliance with, the Policy.
- C. The **External Manager(s)** ("manager(s)") are responsible for all aspects of portfolio management as set forth in their respective contracts with the System and shall fulfill the following duties:
- 1. Communicate with the Staff as needed regarding investment strategy and investment results. The manager(s) are expected to monitor, analyze, and evaluate performance relative to the agreed upon benchmark; and
 - 2. Cooperate fully with the Staff, the System's [custodian](#) and the [General Pension Consultant](#) concerning requests for information.
- D. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, about the internally and externally managed fixed income performance relative to the benchmark and Policy guidelines.

V. PERFORMANCE OBJECTIVE

Exceed the return of the [Lehman Brothers Long Liabilities](#) (LLL) Index while maintaining a high level of diversification.

VI. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Staff will identify opportunities across [bond](#) market sectors and invest where risks are both understood and manageable while complying with specifications in this Policy. [Corporate](#), sovereign, and [mortgage-backed securities](#) may receive a greater allocation than the LLL Index given the higher return expectations. Studies indicate that optimal sector allocations in fixed income favor corporate and mortgage-backed securities over U.S. Treasuries and Agencies relative to the

Index. These studies, along with the System's low liquidity needs, serve as the foundation for a strategy that sacrifices the quality and liquidity of U.S. Treasuries for higher returning corporates, mortgages, and [sovereigns](#). Low liquidity requirements are derived from the high positive cash flow of the current allocation (when including income from investments). Equally important for management of the Fixed Income Portfolio is flexibility in managing durations. In general, the portfolio is expected to remain duration-neutral to the LLL Index unless real returns and [economic analysis](#) dictate otherwise. This flexibility is expected to add value versus a passive approach.

B. Specific Risk Parameters

The System shall manage the following major categories of fixed income risk:

1. Benchmark Risk addresses whether the LLL Index is the appropriate reference point for fixed income.
2. Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration. Duration shall be maintained at $\pm 20\%$ of the LLL Index on an option-adjusted basis. Decisions shall be managed in a controlled manner using historical [real return relationships](#) and economic analysis.
3. [Yield Curve](#) Risk is the price changes induced by the changing slope of the yield curve. Yield curve risk shall be managed in a controlled, disciplined fashion by monitoring key rate durations and [principal component analysis](#).
4. [Convexity](#) Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain. Convexity shall be managed using [option-adjusted](#) and [scenario analyses](#).
5. Sector Risk is the risk of holding sectors proportionally different from the Index. Based on the economic outlook, [historical factors](#), and [break-even analysis](#), Staff shall estimate the impact on various sectors' spreads and make allocations accordingly.

Sector Ranges: The following are ranges by which actual allocations can fluctuate from the benchmark sector weightings:

TOTAL FIXED INCOME PORTFOLIO WEIGHTINGS

Sector	LLL Index	Sector Ranges
U.S. Treasury & Government Sponsored	40%	0-80%
Corporate	24	10-50
Mortgage	30	10-60
Sovereign	3	0-15
Opportunistic	3	0-20
Total	100%	N.A.

6. Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations. Credit risk shall be actively managed on a risk/return basis. A downgrading of a [security](#), which causes a violation of the guidelines, shall not require an immediate sale if the Senior Investment Officer of Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to the System. The internal research Staff and the external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

a. Treasury & Government Sponsored

The minimum weighted-average credit quality shall be AAA rated.

b. [Investment Grade](#) Corporate

1. Holdings in the investment grade [corporate sector](#) shall, at a minimum, be rated investment grade by a recognized [credit rating](#) agency (at least Baa3 by [Moody's](#) or BBB- by [Standard & Poor's](#) or by [Fitch Ratings](#)). This sector includes both domestic and foreign U.S. dollar

and hedged into U.S. dollars public utilities, transportation, industrials, and bank and finance companies.

2. Non-rated bonds shall receive an investment grade [rating](#) (BBB- or above) from the Internal Research Staff. The Internal Research Staff shall review at least annually all corporate issuers, where the investment decision was driven by the attractiveness of the individual issuer. Where the investment in corporate bonds is driven by a favorable macro-view of the corporate sector versus either Treasuries or mortgages, the annual review of issuers shall not apply, as credit risk shall be managed through extensive issue diversification and industry constraints to minimize [event](#) and [idiosyncratic risk](#).
3. The corporate sector will include [credit mortgages](#). All credit mortgages shall receive a credit rating at purchase and the Internal Research Staff shall review them at least annually.

c. Mortgage

The minimum weighted-average credit quality of the mortgage portfolio shall have an AA rating. This category includes mortgage-backed and [asset-backed securities](#). Additionally, it includes commercial mortgages where the primary focus for rating purposes is the underlying collateral and leases.

d. Sovereign

The minimum weighted-average credit quality of the sovereign portfolio shall be investment grade. All sovereign securities shall be U.S. dollar-denominated or non-dollar securities hedged into U.S. dollars.

7. Structure Risk arises from the options implicit in bonds (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations. Structure risk shall be managed using option adjusted scenario and [prepayment analysis](#).

8. Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments. Reinvestment risk shall be managed through [call risk](#) and cash flow analysis.
9. Liquidity risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices. Considering the System's strong cash flow due to the current allocation, few liquidity constraints on the System exist.
10. Currency Risk is the price volatility emanating from the value of the U.S. dollar relative to other currencies of the world. To eliminate this risk, all securities shall be denominated or hedged into U.S. dollars.

C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a single [issuer](#) shall not exceed 2% of the **total** Fixed Income Portfolio during the holding period for such investment. For asset-backed securities, each separate trust (pool of assets) is defined as a separate issuer. For AAA rated mortgage-backed securities, [High Quality LIBOR](#), [Short Duration Fund](#), and STIF, no single issuer limit exists.
2. Non-investment grade securities shall not exceed a maximum of 10% of the **total** fixed income portfolio.
3. Option adjusted durations of the **total** fixed income portfolio must be within 20% of the option adjusted LLL Index duration.
4. Part VI B.5 of this Policy specifies the sector ranges.
5. CBO/CLO shall not exceed a maximum of 5% of the total fixed income portfolio.
6. Tobacco company investments are prohibited.

D. Authorized Securities

1. U.S. Treasury and Government Sponsored Securities (including [derivative](#) securities whose deliverable instrument is a U.S. Treasury or government obligation) excluding mortgages and mortgage-backed securities (MBS)

2. U.S. Publicly Traded Investment Grade Corporate Bonds;
3. U.S. Privately Placed Investment Grade Corporate Bonds;
4. U.S. Publicly Traded Investment Grade Mortgage-Backed Securities including derivative securities whose deliverable instrument or underlying collateral is a U.S. mortgage-backed security;
5. U.S. Privately Placed Investment Grade Mortgage-Backed Securities including single-family residences, commercial loans, and other privately placed mortgage-backed securities;
6. Investment Grade Asset-Backed Securities;
7. Investment Grade [Eurodollar bonds](#);
8. Investment Grade [Yankee bonds](#);
9. Investment Grade [Municipal bonds](#);
10. Investment Grade Non-Dollar Bonds Hedged into U.S. dollars that are consistent with the Foreign Debt Policy (Attachment A); and
11. Opportunistic Securities (see Section X).

VII. BENCHMARK

The benchmark for the Program shall be the Lehman Brothers Long Liabilities Index, which was developed by CalPERS and Lehman Brothers to reflect the long liability nature of CalPERS.

VIII. GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.

IX. DERIVATIVES AND LEVERAGE POLICY

A. [Financial Futures](#), [Swaps](#), and [Options](#)

All transactions involving derivatives and [leverage](#) are governed by the California Public Employees' Retirement System Statement of Investment Policy for Derivatives – Investment Office. In addition to

the restrictions defined in the Derivatives Policy, the following conditions apply:

1. [Short selling](#) of securities is prohibited, except in financial futures (as outlined in Part IX. A. 4. of this Policy);
2. Leverage is prohibited except futures position where there is an associated cash position (which together creates a synthetic bond);
3. The Staff may buy or sell the following fixed income related derivatives: swaps, financial futures, options on financial futures, options on volatility, options on underlying securities, and options on securities indexes, which includes [over-the-counter](#) options (as specified in Part VI. D. 1. of this Policy); and
4. Acceptable strategies include bona fide hedges (to help achieve the target durations) and strategies that exploit the market's erroneous estimation of the volatility of interest rates. Other acceptable strategies include taking advantage of inaccurately priced instruments or using a more efficient method of implementing the investment objectives of the Portfolio.

B. [Collateralized Mortgage Obligations \(CMO\)](#)

1. **Philosophy**

CMOs are considered an important strategic tool for fixed income management. They segregate mortgage cash flows into instruments with different risk/return characteristics than the underlying mortgage pools. These instruments shall be purchased when valuations indicate a superior return versus other securities in the fixed income universe. Selected instruments shall generally exhibit positive convexity and superior call protection versus conventional mortgages. They shall only be purchased after performing the appropriate scenario, break-even, option adjusted, and cash flow analyses.

2. **Purpose**

Use of CMOs shall enhance return opportunities and manage risk at appropriate valuation levels while exercising prudence.

C. Restrictions and Prohibitions

1. Uncovered call writing is prohibited.
2. [Premiums](#) on purchased options on [futures](#) may not exceed 1% of the beginning market value of the total fixed income portfolio in any calendar year.
3. [Speculation](#) or [arbitrage](#) between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.
4. A maximum of 3% of the total fixed income portfolio may be invested in mortgage securities that are leveraged (e.g., [inverse floaters](#)).

D. Counterparty Exposure for Options, Swaps and Futures

1. The greater of \$500 million or 25 percent of the total notional derivative exposure can be maintained with any one counterparty for non-exchanged-traded derivatives (e.g., swaps, [caps](#), [floors](#), and options).
2. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. who have a short-term debt rating by at least two of the following three rating agencies:

A1 (Standard & Poor's) and P1 (Moody's), or F1 (Fitch Ratings), or rated on a long-term basis A3 (Moody's) A- (Standard & Poor's), or A- (Fitch Ratings Services). The Internal Research Staff shall actively review these brokers.

X. OPPORTUNISTIC INVESTMENTS

- A. Securities or sub-asset classes, which are candidates for inclusion, shall have risk, return, and correlation profile sufficiently different from other sectors such that its inclusion or exclusion can affect the risk and return expectations of the Portfolio. The criteria for inclusion into this classification shall include, but are not limited to:
 1. Sufficient size, liquidity, and cost efficiency to allow a meaningful amount to be invested and have an impact on the total return.

2. Availability of sufficient internal or external investment and technical expertise to insure prudent implementation of an investment in that sub-asset class.
 3. Presence of diversification, return enhancement, or some other readily identifiable attribute which is sufficiently different from other asset classes and which enhances the Fund's ability to achieve the strategic objectives outlined in this Policy.
 4. Acceptance by other large money managers or financial institutions as a viable and meaningful sub-asset class or in the absence of such acceptance, academic basis or foundation for its inclusion.
 5. Availability of sufficient data and/or history or expertise to assess the viability or benefit of the asset class to the Fund and to have an investment outcome that is measurable from such an asset class. Further, the asset class must have a basis for developing expected investment return, risk, and correlations for purposes of the financial study.
- B. A sub-asset class may be approved for investment provided that it meets the criteria above and that the Senior Investment Officer, Fixed Income has reviewed educational literature and/or other sources to fulfill fiduciary responsibility and has received approval by the Chief Investment Officer.
- C. Permitted Opportunistic Investments
1. Domestic and Hedged Non-Dollar [High Yield](#), including corporate zero and [PIK](#) securities;
 2. [Leveraged](#) and [Un-leveraged Bank Loans](#);
 3. [Asset Based Loans](#);
 4. Non-investment grade CBO/CLO securities;
 5. [Convertible Bonds](#);
 6. CMO residuals;
 7. Dollar Denominated and Hedged Non-Dollar Sovereign Debt of countries that meet the requirements of Foreign Debt Policy (Attachment A);

8. Other sub-asset classes may be added if they fit Part X, A and B.

XI. GLOSSARY OF TERMS

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

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Attachment A**Global Debt Issued by National Governments**

The policy stipulations for global debt issued in major markets differ somewhat for externally managed holdings denominated in major nondollar currencies and for internally managed holdings denominated in the dollar. The differences are found in the approach to limiting portfolio concentration in emerging markets, while minimum credit rating requirements are the same for both. The stipulations are as follows:

1. For both externally and internally managed portfolios, global bonds issued by national governments must have a credit rating of BB- or higher from S&P or Fitch, or Ba3 or higher from Moody's.

Local-Currency Debt of National Governments and All Debt of Corporations and Subnational Governments (i.e., Provincial, State, and Municipal)

1. Both the issuer and the issuer's national government (if the issuer is not the national government itself) must be rated investment grade, at least BBB- by S&P or Fitch, or Baa3 by Moody's. Even in the case of local-currency debt, this requirement must be satisfied by long-term foreign currency ratings instead of local-currency ratings, which are generally higher because a country can easily print more of its own currency to meet its local debt obligations. This unconventional, very conservative application of the rating requirement will give extra protection against the special foreign-exchange valuation and retrieval risks of local-currency debt.
2. The country must be part of the Lehman Global Aggregate Index, a widely followed index which includes only those local markets that are fairly liquid and fairly well developed.
3. The country's currency must be fully convertible in the spot market for foreign investors, so that managers may retrieve CalPERS' funds without limit or obstruction.